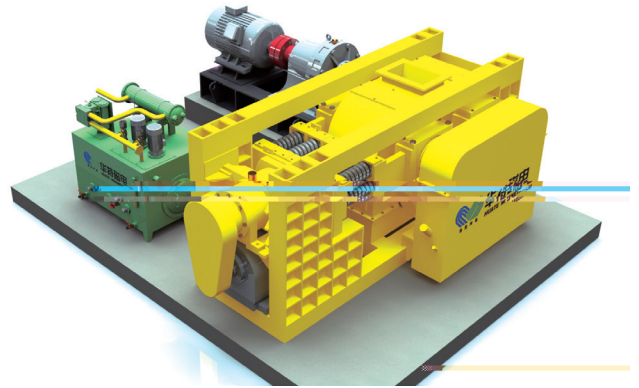


单传动高压辊磨机

SINGLE DRIVE HIGH PRESSURE GRINDING ROLL

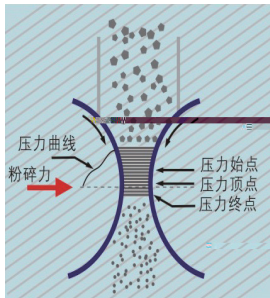
Application Scope

Single-drive high pressure grinding roll is specially designed to pre-grind the cement clinkers, the mineral dross, the steel clinkers and so on into small granules, to ultra-crush the metallic minerals (iron ores, manganese ores, copper ores, lead-zinc ores, vanadium ores and others) and to grind the non-metallic minerals (the coal gangues, feldspar, nepheline, dolomite, limestone, quartz, etc.) into powder.



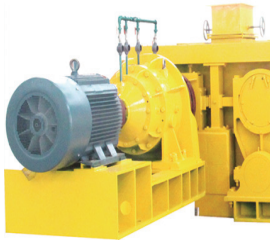
Structure & Working Principle

Working Principle Diagram



The single-drive high pressure grinding roll adopts the grinding principle of material aggregate extrusion. One is stationary roll and the other is movable roll. The two rolls rotate oppositely at the same speed. The materials enter from the upper feed opening, and are grinded due to extrusion by high pressure in the gap of the two rolls, and discharged from the bottom.

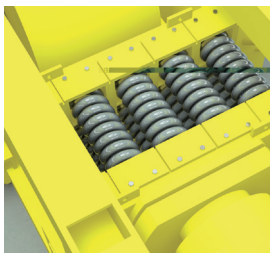
Drive part



45%

Only one motor drive is needed, the power is transmitted from the stationary roll to the movable roll through the gear system, so that the two rolls are fully synchronized with no sliding friction. The work is all used for material extrusion, and the energy consumption utilization rate is high, which saves 45% of electricity compared to conventional high pressure grinding roll.

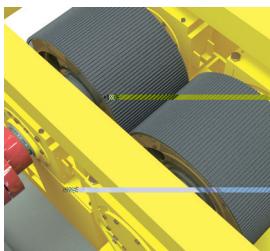
Pressure applying system



95%

The combined spring mechanical pressure applying system makes the movable roll avoid flexibly. When there is iron foreign matter entering, the spring pressure applying system directly sets back and reacts in time, ensuring the operation rate is as high as 95%; while the traditional high pressure grinding roll makes avoiding, the hydraulic oil needs to be discharged through the pipeline for pressure relief. The action is delayed, which may cause damage to the roll surface or malfunction of the hydraulic system.

Roll surface



HRC58- 65

The roll surface is surfacing welded with alloy wear-resistant welding material, and the hardness can reach HRC58- 65; the pressure is automatically adjusted with the material, which not only achieves the purpose of grinding, but also protects the roll surface; the movable roll and the stationary roll operate synchronously without sliding friction. Therefore, the service life of the roll surface is much higher than that of the conventional high pressure grinding roll.

Main Technical Features

40- 50% PGM1040 50-100t/ 90kW,
20- 30%
95%

High Working Efficiency. Compared with the traditional crushing equipment, the processing capacity increases by 40 - 50%. The processing capacity for PGM1040 can reach around 50 - 100 t/h, with only 90kw power.

Low Energy Consumption. As per the single roll driving way, it needs only one motor to drive. The energy consumption is very low. Compared with the traditional double drive HPGR, it can reduce the energy consumption by 20-30%.

Good Wear-resistant Quality. With only one motor driving, the synchronization performance of the two rolls is very good. With wear-resistant welding surfaces, the rolls are with good wear-resistant quality and can be easily maintained.

High Operation Rate: 95%. With scientific design, the equipment can be pressurized by the high pressure spring group. The working pressure can be adjusted automatically as per the spring group compress. There is no malfunction point.

High Automation and easy adjustment. Without the hydraulic system, there is low malfunction rate.

The roll surface is surfacing welded with alloy wear-resistant welding material, with high hardness and good wear-resistance. The pressure to the spring comes from the reaction force of the material, and the pressure is always balanced, which not only achieves the purpose of crushing, but also protects the roll surface; the movable roll and the stationary roll are meshed and driven by the gear system, and the speed is completely synchronized, thereby avoiding sliding friction between the material and the roll surface. Therefore, the service life is much higher than that of the double drive HPGR.

Compact structure and small floor space.

Technical Parameters

Model	Roll diameter mm	Roll width mm	()mm Max. feed size (Cement, steel slag, ore slag) mm	()mm Optimum feed size (metallic mineral, non-metallic mineral) mm	Output size cement mm	T/h Processing capacity T/h	Kw Motor power Kw	× × mm Outline dimensions L× W× H mm
PGM0850	800	500	50	30	Classifying	4 30 40	37	2760× 2465× 1362
PGM1040	1000	400	50	30	(2.5 75%) Classifying	4 50 80	90	4685× 4300× 2020
PGM1060	1000	600	50	30	(2.5 75%) Classifying	4 70 110	110	4685× 4300× 2020
PGM1065	1000	650	50	30	(2.5 75%) Classifying	4 100 160	200	5560× 4500× 2200
PGM1250	1200	500	50	30	(2 80%) Classifying	4 120 180	250	6485× 4700× 2485
PGM1465	1400	650	50	30	(2 80%) Classifying	4 240 320	630	9200× 6320× 3600
PGM1610	1600	1000	50	30	(V 1) Classifying	4 500 650	1250	10800× 8100× 4400

() for reference only